



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CITY VIEW PLAZA, SUITE 7000
#48 165 RD. KM 1.2
GUAYNABO, PR 00968-8069

FEB 25 2016

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Article Number: 7015 0920 0000 8688 0714

Irma López
Executive Director
Compliance and Quality Control Directorate
Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
San Juan, Puerto Rico 00916-9990

**Re: Reconnaissance Inspection
Guánica Wastewater Treatment Plant
NPDES Permit Number PR0020486**

Dear Mrs. López:

On December 21, 2015, the United States Environmental Protection Agency (EPA) conducted a Reconnaissance Inspection (RI) at the Guánica Wastewater Treatment Plant. The purpose of the inspection was to assess PRASA's operational and maintenance practices at the facility.

Enclosed you will find a copy of the Water Compliance Inspection Report, which summarizes our findings during the RI. Within forty five (45) calendar days of receipt of this letter, please respond with the actions PRASA has taken or will be taken to address the findings of the inspection.

Should you have any questions, feel free to contact me or Miguel A. Batista of my staff at (787) 977-5823.

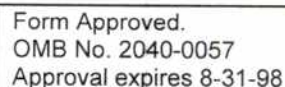
Cordially,

Jaime A. Géliga
Chief

Municipal Water Programs Branch
Caribbean Environmental Protection Division

Enclosure

cc. Wanda Garcia, EQB
Juan Rodriguez, PRASA
Jeannette Vélez, PRASA



Summary of Findings/Comments
Water Compliance Inspection Report Form
(EPA Form 3560-3)

RECONNAISSANCE INSPECTION

Facility Name: Guánica WWTP
NPDES Permit Number: PR0020486
PRASA Representative: Amalio Quirós, Plant Operator

I. BACKGROUND

A Reconnaissance Inspection (RI) was conducted on December 21, 2015 at the Guánica WWTP. The RI consisted of an opening interview to discuss the purpose of the inspection and to request information about the facility. A walk through the plant was performed to evaluate its operational conditions. Also, a grab sample of the effluent was collected to evaluate the appearance of the discharge at the time of the inspection.

II. PLANT OPERATION AND MAINTENANCE

The Guánica WWTP consists of two treatment modules. One module is a 0.5 MGD activated sludge conventional package plant (Old Plant) and the second module is a 1.25 MGD Biological Nutrient Removal (BNR) treatment plant (New Plant). At the time of the RI, the old plant was not in operation. The BNR module began to operate on August 13, 2015.

Mr. Amalio Quirós was acting as Plant Operator for the Guánica WWTP. Mr. Quirós has obtained the certification as a Wastewater Treatment Plant Operator Level IV # 2099 which expires on April 22, 2017.

III. FACILITY SITE REVIEW – SUMMARY OF FINDINGS

- A. Equipment and/or treatment units identified in poor operational conditions during a previous Compliance Evaluation Inspection (CEI) conducted on June 3, 2015; were identified and verified at the time of the RI, and are summarized in the following table:

Findings June 3, 2015 CEI	Findings December 21, 2015 RI
1) The Filter Press had a Notification # 10184561 for its angular structure which was corroded. SAP # 1107285. Date: June/25/2013.	Corrected on 09/25/2015.
2) The Cl ₂ Potable Booster Pump had a Notification # 10331262 for a water leak. SAP # 1124542. Date: May/18/2015.	Corrected on 09/01/2015.
3) The chlorine gas cylinder crane had a Notification # 10330191 for motor out of service. SAP # 209288. Date: May/13/2015.	Corrected on 06/14/2015.

Findings June 3, 2015 CEI	Findings December 21, 2015 RI
4) The Pump/Motor NPW # 1 had a Notification # 10326728 for its check valve. SAP # 1124541. Date: April/23/2015.	Corrected on 06/16/2015.
5) The Pump/Motor Degritter # 1 had a Notification # 10330755 for malfunction. SAP # 208765. Date: May/13/2015.	Not corrected.
6) The Paddle Drive Degritter # 1 had a Notification # 10330704 for malfunction. SAP # 209655. Date: May/13/2015.	Not corrected.
7) The Paddle Drive Degritter # 2 had a Notification # 10314228 for broken transmission. SAP # 209656. Date: February/16/2015.	Not corrected.
8) The Panel Degritter # 1 had a Notification # 10314226 for out of service. SAP # 213031. Date: February/16/2015.	Not corrected.
9) The Panel Degritter # 2 had a Notification # 10314227 for out of service. SAP # 213033. Date: February/16/2015.	Not corrected.
10) The Wet Well Sum Spare Pump had a Notification # 101010950048. It got burned. SAP # 1104906. Date: October/23/2014.	Not corrected.
11) The Wet Well Sum New Pump had a Notification # 10101058235. It got burned. SAP # 208444. Date: October/23/2014.	Not corrected.
12) The Pump/Motor Sludge # 1 had a Notification # 10331972 for alignment. SAP # 208767. Date: May/20/2015.	Corrected on 06/03/2015.
13) The Filter Press had a Notification # 10322248 for pulley cleaning. SAP # 1107285. Date: March/31/2015.	Corrected on 11/10/2015.
14) The transmission – clarifier arm unit # 2 for BNR building had a Notification # 10331988. It's motor got burned. SAP # 209654. Date: May/20/2014.	Corrected on 09/22/2015.
15) The interior illumination had a Notification # 11620758. It was out of service. Date: May/26/2015.	Not corrected.

Findings June 3, 2015 CEI	Findings December 21, 2015 RI
16) The exterior illumination had a Notification # 11620758. It was out of service. Date: March/26/2015.	Not corrected.
17) The water fountain located at the office was out of service. Notification # 10312404. Date: February/5/2015.	Not corrected.
18) The spare blower was out of service. Notification #: 10322246. SAP #: 208951. Date: March/29/2015.	Corrected.
19) The drainage valve – digester to influent was out of service. Notification #: 10326869. SAP #: 212617. Date: April/23/2015.	Not corrected.
20) The mixers control panel was out of service. SAP # 213039.	Corrected.

B. At the time of the RI, the operational status of the following equipment either out of service or in malfunction was listed in Form AAA-48 as follows:

EQUIPMENT	SAP #	NOTIFICATION #	DATE	COMMENT
1) Motor-Blower # 1 (old plant).	1116116	10366591	11/30/2015	Oil leak.
2) Motor-Blower # 2 (old plant).	208952	10366593	11/30/2015	Oil leak.
3) Blowers Room MCC Exhaust fan.	1112476	10343156	07/27/2015	Out of operation.
4) Spray Sum Pump.	1121339	10344193	08/03/2015	Out of operation.
5) Clarifier's Arm Transmission (Original).	209657	10352613	09/15/2015	Broken rubber.
6) Cl2 Potable Booster Pump.	1124542	10366594	11/30/2015	Does not operate when power outage.
7) Chlorine scale.	1110026	10369210	12/16/2015	Wrong readings.
8) Pump/Motor NPW # 2.	1120889	10343850	07/31/2015	Pressure lift.
9) Sum Pump Wet Well Plant's Influent Original 3.	1105306	10347941	08/22/2015	Got burned.
10) BNR Clarifier # 1 Building.	-----	10366548	11/30/2015	Short circuit.
11) Clarifier's Arm Transmission – BNR # 1.	209653	10360441	10/21/2015	Broken rubber.

EQUIPMENT	SAP #	NOTIFICATION #	DATE	COMMENT
12) Sum Pump Equalization Tank # 2.	208446	10343851	08/12/2015	Got burned.
13) Anaerobic Mixer -BNR # 2.	1112952	10362495	11/02/2015	Broken wire.
14) Anoxic Mixer – BNR # 1 – Stage # 1.	1112953	10369826	12/20/2015	Got tripped.
15) Pump/Motor NPW # 1.	1124541	10370020	12/21/2015	Pressure lift.
16) Motor-Blower BNR # 1.	1104338	10332904 10362500	06/15/2015 11/02/2015	"Disyuntivo" Pressure clock
17) Motor-Blower BNR # 2.	208945	10336910	06/15/2015	"Disyuntivo"
18) Motor-Blower BNR # 3.	208946	10362499	11/02/2015	Pressure clock
19) Motor-Blower BNR # 4.	208947	10336911	06/15/2015	"Disyuntivo"
20) Motor-Blower EQ # 1.	208948	10336912	06/15/2015	"Disyuntivo"
21) Motor-Blower EQ # 2.	208949	10336913	06/15/2015	"Disyuntivo"
22) Recirculation Sludge Pumps Control Panel.	213040	10362996	11/04/2015	RAS flow meter
23) Influent's Flow Meter – BNR.	-----	10343855	07/31/2015	No flow meter.

C. Other Observations:

- 1) The BNR bridge has no step at the lower level to safely reach the upper level (and vice versa), as shown in Figure # 1 attached.
- 2) Scum, grease and excessive froth were observed at the surface of the digester, as seen in Figure # 2 attached.
- 3) Old sludge, grease, and algae growth was observed at the anoxic stage # 1, as seen in Figure # 3 attached.
- 4) Solids and grease were observed at the anaerobic stage # 1, as seen in Figure # 4 attached.
- 5) Evidence of corrosion were observed at different units at the plant, as seen in Figures # 5 and # 6 attached.
- 6) According to the operator, there was no control of the recirculation pumps, floccules were being lifted. Variators were not properly working. For effectiveness in the process, variators were being operated manually.
- 7) Supernatant and grease were observed at the chlorine contact chamber.
- 8) The effluent auto-sampler hose was dirty.
- 9) According to the operator, RAS pumps get tripped during the night. Anoxic Mixer # 1 got damage and burned. According to the operator, this is caused by fluctuations on primary power. In addition, the sludge age has been decreased from 8 days to 3 days.

IV. EFFLUENT QUALITY

A grab sample of the effluent was taken by PRASA at the sampling point 001 for appearance purposes; revealing that it was **not so clear**, and it had **supernatant**: (please indicate if present)

color – No.

grease – No.

oil sheen – No.

turbidity* – **Turbid-like**.

visible foam – No.

visible floatable solids – No.

other – N/A.

* Based on observations, it's not a quantitative measure.

V. CONCLUSION

Please note that Part C.5 of Attachment I of the permit requires the permittee to properly operate and maintain all facilities and systems for collection and treatment (and related appurtenances) which are installed or used to achieve compliance.

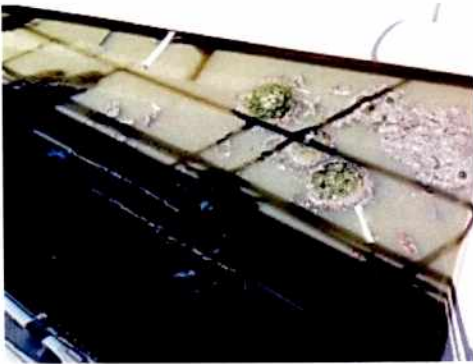
Attachment:



Guanica WWTP (RI)
December 21, 2015
Figure # 1 – BNR.



Guanica WWTP (RI)
December 21, 2015
Figure # 2 – Digester.



Guanica WWTP (RI)
December 21, 2015
Figure # 3 – Anoxic Stage 1.



Guanica WWTP (RI)
December 21, 2015
Figure # 4 – Anaerobic Stage 1.



Guanica WWTP (RI)
December 21, 2015
Figure # 5 – Corrosion.



Guanica WWTP (RI)
December 21, 2015
Figure # 6 – Corrosion.